

**CALIFORNIA ENERGY COMMISSION**

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June 10, 2004

Ms. Julie Labonte, P.E.  
San Francisco Public Utilities Commission  
City and County of San Francisco, General Management Office  
1155 Market Street, Floor 11  
San Francisco, CA 94103

Dear Ms. Labonte:

**RE: SAN FRANCISCO ELECTRIC RELIABILITY PROJECT (SFERP) DATA REQUESTS  
(Supplemental Filing)**

Pursuant to Title 20, California Code of Regulations, section 1716, the California Energy Commission requests the information specified in the enclosed data requests. The information requested is necessary to: 1) more fully understand the project, 2) assess whether the facility will be constructed and operated in compliance with applicable regulations, 3) assess whether the project will result in significant environmental impacts, 4) assess whether the facilities will be constructed and operated in a safe, efficient and reliable manner, and 5) assess potential mitigation measures.

These data requests are made as a supplement to those filed on June 4, 2004. This supplemental filing is in the area of Soil and Water Resources (Water Supply and Recycled Water Treatment) (#92 -114). Written responses to the enclosed data requests are due to the Energy Commission staff on or before July 12, 2004, or at such later date as may be mutually agreed upon.

If you are unable to provide the information requested, need additional time, or object to providing the requested information, please send a written notice to the Committee and me within 10 days of receipt of this notice. The notification must contain the reasons for the inability to provide the information or the grounds for any objections (see Title 20, California Code of Regulations, section 1716 (f)).

If you have any questions regarding the enclosed data requests, please call me at (916) 654-4206.

Sincerely,

**BILL PFANNER**  
Energy Facility Siting Project Manager

Enclosure

cc: Docket (04-AFC-1)  
Proof of Service List

**SAN FRANCISCO ELECTRIC RELIABILITY PROJECT  
DATA REQUESTS  
04-AFC-1**

**Technical Area: Soil and Water Resources (Water Supply and Recycled Water Treatment)**

**Author:** John C. Scroggs

**BACKGROUND**

Process water for the project is to be provided in a mile-long pipeline that would originate at a new pump structure constructed at an existing combined sewer system structure. Peak day process water demands are estimated at 0.59 MGD (approximately 420 gpm) and average day water demands are estimated at 0.50 MGD (approximately 350 gpm).

**DATA REQUEST**

Please provide the following data:

92. The size (diameter) of the combined sewer that would serve as the process water supply source.
93. The capacity of combined sewer and the known or estimated peak, average day, and minimum (summer time), flows in the combined sewer.
94. The age of the combined sewer that will serve as the supply source.
95. The characteristics of the area served by the combined sewer; primarily residential, primarily industrial or mixed?

**BACKGROUND**

As part of this project, the City of San Francisco proposes to construct a new water supply pump station that would transport the combined sewer water source in a mile-long pipeline to the SFERP site. The pump station is to include three variable frequency drive pumps; two operational and one standby.

**DATA REQUEST**

96. Provide information on the proposed operation and maintenance of the water supply pumps. Will the SFERP wastewater plant operator also be responsible for the operation and maintenance of these supply pumps? If not, how will the operation and maintenance of these remote supply pumps be monitored by the SFERP wastewater plant operator? Is a SCADA system proposed to monitor and to cycle the operation of the remote pump station?

**SAN FRANCISCO ELECTRIC RELIABILITY PROJECT  
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**BACKGROUND**

The one-mile water supply pipeline would be constructed north from the water supply pump station at Main Street along Mississippi Street for approximately 480 feet, east along Cesar Chavez Street for approximately 1960 feet, then 1880 feet north on Tennessee Street and then 1360 feet east on 23<sup>rd</sup> Street to the SFERP treatment facility inlet structure. While a profile of the proposed pipeline route was not provided, it is understood that the water supply pipeline is a force main with high points and low points to overcome elevation differences and conflicts with existing underground structures and utilities along the route.

**DATA REQUEST**

97. Provide information on air release or combined air release / vacuum release valves proposed at high points and clean outs proposed at pipeline low points.
98. Is odor control proposed at the air release or combination or / vacuum release valves?

**BACKGROUND**

The SFERP recycled water plant is to include primary (solids removal) secondary (activated sludge) and tertiary (filtration and membrane) treatment. Treated water for cooling tower supply may require chemical conditioning. Water used for NO<sub>x</sub> suppression injections and compressor evaporative cooling will be treated with a reverse osmosis (R0) system. The R0 product is to be fed to an eletrodeionization system. Disinfection with ultraviolet (UV) light or chlorination systems is proposed.

**DATA REQUEST**

99. List and describe the physical, biological and chemical treatment processes proposed and describe how system redundancy and reliability is to be provided with equipment breakdowns and during equipment maintenance periods.
100. Describe how the recycled water treatment system is to be controlled and monitored. Provide information on operational and chemical control systems. Are sampling systems proposed which will maintain quality levels within high and low tolerances (set points)? Are alarm (and system shut downs) proposed when plant operation or effluent quality test results are not within acceptable ranges?

**BACKGROUND**

Storage of water treated by the SFERP recycled water treatment plant is proposed. This stored water would be used to meet fluctuations in process water demands and to provide backwash water supply for proposed filtration and membrane processes.

**SAN FRANCISCO ELECTRIC RELIABILITY PROJECT  
DATA REQUESTS  
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**DATA REQUEST**

101. Provide information on the proposed capacity of the treated water storage tank.

**BACKGROUND**

Chemicals are proposed for the treatment of water to be used for cooling water supply (pH control, mineral scale dispersant, corrosion inhibitor, biocide).

**DATA REQUEST**

102. Provide a complete list of water treatment chemicals proposed.
103. Provide Material Safety Data Sheets (MSDS) for all water conditioning chemicals proposed.
104. Provide the volume of the chemical containers, the spill containment systems and the capacity (in days of average plant operation) that each chemical container is to provide.
105. Where are chemicals to be stored: in covered storage areas or in uncovered areas?
106. In general, water and wastewater system chemicals are added in proportion to flow. Provide information on proposed chemical dosage control systems. Are sampling systems proposed which will maintain chemical concentrations within high and low tolerances (set points)? Are alarms (and systems shut down?) proposed in the event that chemical concentrations exceed the allowable range?

**BACKGROUND**

The recycled water treatment plant would include numerous pumps and power driven process systems. Standby power should be provided to operate critical supply and treatment units in the event of a power failure.

**DATA REQUEST**

107. Provide the horsepower demands for all critical water supply and recycled water treatment pumping and process equipment.
108. What plans have been made to provide a standby power system adequate to start and operate these critical units during an outage as part of the proposed SFERP recycled water treatment plant. Please provide a description of the power supply for the water supply pump station and evaluate the possibility of including a permanent or portable standby power system to serve the remote water supply pump station.

**SAN FRANCISCO ELECTRIC RELIABILITY PROJECT  
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04-AFC-1**

**BACKGROUND**

The SFERP recycled water treatment plant is to be housed in a pre-engineered building. Odors are to be removed through an activated carbon absorption system and ventilated to the atmosphere. Up to 15 air changes per hour is proposed.

**DATA REQUEST**

- 109. What is the distance to the nearest sensitive receptor (residence, public area, school etc.)?
- 110. What reliability measures are proposed (backup units, redundancy) during period when the odor control system is being repaired or fails?
- 111. Would all odors be removed. If not what would remain?

**BACKGROUND**

During emergency water supply or recycled water treatment plant shutdown conditions, potable water is proposed as backup supply.

**DATA REQUEST**

- 112. What is the expected frequency and duration and amount of potable water use?
- 113. Describe cross connection controls proposed to protect the potable water system from contamination by the recycled water system.

**BACKGROUND**

According to the AFC miscellaneous general plant drains will collect area washdown, sample drains, equipment leakage, and drainage from facility equipment areas. Water from these areas will be collected in a system of floor drains, hub drains, sumps and piping and routed to the combined storm sewer collection system. Drains that potentially could contain oil or grease will first be routed through an oil / water separator.

**DATA REQUEST**

- 114. To evaluate how stormdrain water and washdown water is to be contained and discharged to the combined sewer provide an onsite water / wastewater / stormwater piping plan at a scale of 1" = 40' or larger. Label drain pipes, identify pipe sizes and, pumping facilities as necessary.